

=> b reg
FILE 'REGISTRY' ENTERED AT 14:46:53 ON 17 NOV 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 16 NOV 2008 HIGHEST RN 1072892-84-2
DICTIONARY FILE UPDATES: 16 NOV 2008 HIGHEST RN 1072892-84-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> d que sat 17
L5 STR
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE
L7 6 SEA FILE=REGISTRY SSS FUL L5

=> b hcap
FILE 'HCAPLUS' ENTERED AT 14:47:04 ON 17 NOV 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
the American Chemical Society and is provided to assist you in searching
databases on STN. Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 17 Nov 2008 VOL 149 ISS 21
FILE LAST UPDATED: 16 Nov 2008 (20081116/ED)

HCAPlus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2008.

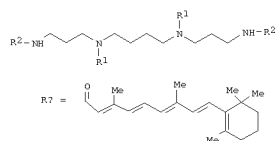
New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> d bib abs hitrn fhitstr 112 tot

L12 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2008 ACS on SIN
 AN 2004:182730 HCAPLUS
 DN 140:235912
 TI Preparation of polyamine conjugates with acidic retinoids and their
 therapeutic applications
 IN Papaioannou, Dionysios; Drinas, Dionysios; Tsambaos, Dionysios
 DA Greece
 SO PCT Int. Appl., 45 pp.
 CODEN: PFXK32
 DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO--2004018001	A1	20040304	2002WO-GR0000045	20020822
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BG, BR, BY, BE, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, ME, NO, NE, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, ME, SD, SL, SE, TE, UG, EM, AM, AZ, BY, KG, KE, MD, RU, TJ, TM, AT, BG, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU--2002224242	A1	20040311	2002AU-000324242	20020822
EP-----3569694	A1	20050907	2002EP-000758661	20020822
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CL, EE, SK			
US-20060189696	A1	20060824	2003US-000549905	20050920
PPAI 2002WO-GR0000045	A	20020822		
OS MARPAT 140:235912				
GI				

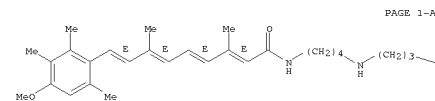


AB The present invention discloses preparation of novel polyamine conjugates with acidic retinoids, such as I (R1 = H, R2 = H, R3 = H, R4), for their therapeutic use as RNase P inhibitors and anti-inflammatory agents. I have been readily obtained using as key-step the condensation of linear, conformationally restricted, cyclic and branched polyamines or suitably protected derivs. with vitamin A derivs. These compds. inhibit the ribozyme RNase P (RNase P) and the production of interleukin-2 (IL-2) and interferon- γ (INF- γ) by peripheral blood mononuclear cells in vitro. Thus, retinoid analog I (R1 = R2; R2 = H (II)) was prepared via multistep synthetic sequence starting from I (R1 = H, R2 = COC(=O). (CF3CO2H)2 and all-trans-retinoic acid. II was tested for D. discoideum RNase P activity (Ki = 1.1 μ M).

II 666854-51-9P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of polyamine conjugates with acidic retinoids and their therapeutic use as RNase inhibitors and anti-inflammatory agents)
 IT 666854-44-0 666854-45-1

L12 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2008 ACS on SIN (Continued)
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (prepn. of polyamine conjugates with acidic retinoids and their therapeutic use as RNase inhibitors and anti-inflammatory agents)
 IT 666854-57-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of polyamine conjugates with acidic retinoids and their therapeutic use as RNase inhibitors and anti-inflammatory agents)
 IT 666854-51-9P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of polyamine conjugates with acidic retinoids and their therapeutic use as RNase inhibitors and anti-inflammatory agents)
 RN 666854-51-9 HCAPLUS
 CN 2,4,6,8-Nonatetraenamide, N-[(4-[(3-aminopropyl)amino]butyl)-9-[(4-methoxy-2,3,6-trimethylphenyl)-3,7-dimethyl-, (2E,4E,6E,8E)- (CA INDEX NAME)

Double bond geometry as shown.



PAGE 1-A

PAGE 1-B



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
=> b uspatall
FILE 'USPATFULL' ENTERED AT 14:47:18 ON 17 NOV 2008
CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

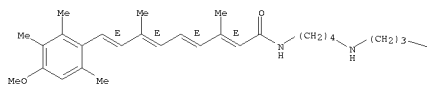
FILE 'USPATOLD' ENTERED AT 14:47:18 ON 17 NOV 2008
CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 14:47:18 ON 17 NOV 2008
CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

=> d bib abs hitrn fhitstr l14 tot
```

L14 ANSWER 1 OF 1 USPATFULL on STN
RN 2006:222410 USPATFULL
TI Polyamine conjugates with acidic retinoids and preparation thereof
IN Papaioannou, Dionysios, DEPARTMENT OF CHEMISTRY, UNIVERSITY OF PATRAS,
PATRAS, GREECE 26504
Drinas, Dionysios, Patras, GREECE
Tsambaos, Dionysios, Rio Patras, GREECE
PI US-20060189696 A1 20060824
AI 2002US-000549805 A1 20020822 (10)
2002WO-GR0000045 20020822
20050920 PCT 371 date
DT Utility
FS APPLICATION
LREP George B Georgelus, Pkm 143, 152 Congressional Lane, Rockville, MD,
20852, US
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN 12 Drawing Page(s)
LN CNT 832
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Invented are novel polyamine conjugates which have been readily obtained
using as key-step the condensation of linear, conformationally
restricted, cyclic and branched polyamides or suitably protected
derivatives with vitamin A derivatives. These compounds inhibit the
ribozyme ribonuclease P (RNase P) and the production of interleukin-2
(IL-2) and interferon- γ (INF- γ) by peripheral blood
mononuclear cells in vitro.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI 666854-51-9P
(preparation of polyamine conjugates with acidic retinoids and their
therapeutic use as RNase inhibitors and anti-inflammatory agents)
IT 666854-44-0 666854-45-1
(preparation of polyamine conjugates with acidic retinoids and their
therapeutic use as RNase inhibitors and anti-inflammatory agents)
IT 666854-57-5P
(preparation of polyamine conjugates with acidic retinoids and their
therapeutic use as RNase inhibitors and anti-inflammatory agents)
IT 666854-51-9P
(preparation of polyamine conjugates with acidic retinoids and their
therapeutic use as RNase inhibitors and anti-inflammatory agents)
RN 666854-51-9 USPATFULL
CN 2,4,6,8-Nonatetraenamide, N-[4-[(3-aminopropyl)amino]butyl]-9-[4-methoxy-
2,3,6-trimethylphenyl]-3,7-dimethyl-, (2E,4E,6E,8E)- (CA INDEX NAME)
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

NH2

=> d his

FILE 'HCAPLUS' ENTERED AT 14:40:29 ON 17 NOV 2008
L1 1 US20060189696 /PN

FILE 'REGISTRY' ENTERED AT 14:40:41 ON 17 NOV 2008

FILE 'HCAPLUS' ENTERED AT 14:40:42 ON 17 NOV 2008
L2 TRA L1 1- RN : 39 TERMS

FILE 'REGISTRY' ENTERED AT 14:40:42 ON 17 NOV 2008
L3 39 SEA L2
L4 14 L3 AND 46.150.18/RID
L5 STR
L6 1 L5
L7 6 L5 FULL
L8 4 L7 AND L3
L9 2 L7 NOT L8

FILE 'HCAOLD' ENTERED AT 14:45:37 ON 17 NOV 2008
L10 0 L8
L11 0 L9

FILE 'HCAPLUS' ENTERED AT 14:45:43 ON 17 NOV 2008
L12 1 L8
L13 0 L9

FILE 'USPATFULL, USPATOLD, USPAT2' ENTERED AT 14:45:59 ON 17 NOV 2008
L14 1 L8
L15 0 L9